Application No. 09/849,144
Attorney Docket No. 11685US03

REMARKS

The present application includes claims 12-17. Claims 15-17 were objected to by the Examiner. Claims 12-17 were rejected. By this Amendment, claims 12 and 15 have been amended and new claims 18-29 have been added.

First, with regard to the IDS filed on May 4, 2001, the IDS listed a non-patent literature reference, as noted by the Examiner. However, it appears that the mentioned reference apparently relates to an exhibit at the Cincinnati Fire show having an on-off switch, dimmer, battery, and liquid crystal, which is considerably different from the technology discussed in the present application. The reference from the Fire Show appears to have been included in error in the IDS of May 4, 2001 and consequently may be ignored.

Claims 12-17 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. Patent No. 5,729,527. A Terminal Disclaimer in favor of U.S. Patent No. 5,729,527 is enclosed. Consequently, the applicant respectfully submits that the present double patenting rejection has been traversed.

Claims 12-17 were also rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. Patent No. 6,256,293.

A Terminal Disclaimer in favor of U.S. Patent No. 6,256,293 is also enclosed. Consequently, the applicant respectfully submits that the present double patenting rejection has been traversed.

Claims 15-17 were objected to because of a misspelling in independent claim 15. As the Examiner noted, the word "card" was misspelled as "care". Claim 15 has been amended to correct the typographical error.

Claims 12-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shinbashi, U.S. Patent No. 5,796,717. Shinbashi teaches a system for switching from working units to standby units. In the Office Action, the Examiner directs attention to Figure 7 of Shinbashi and its accompanying description. Figure 7 illustrates a switching structure having a plurality of working units. Each working unit is associated with a switching unit. A single common stand-by unit for all of the working units is also shown.

In operation, an input is received by the working unit from the left. The input is also hard-wired to the switching unit associated with the working unit. The switching unit is in turn hard-wired to the common stand-by unit. In the event of the failure of a working unit, the input is re-routed to the switching unit before the input is received by the working unit. The switching unit then routes the input to the common stand-by unit.

Similarly, once the common stand-by unit processes the input to form an output,

the output is passed back to the switching unit. The switching unit then provides the output directly on the output line without passing the output through the working unit.

That is, Shinbashi teaches that the switching unit completely bypasses the working unit when the working unit fails. Reviewing the Examiner's findings from the bottom of page 2 of the Office Action, the Examiner has construed the working units of Shinbashi to be the same as the line card recited in the present claims. Consequently, using the Examiner's interpretation, in the event of a failure of a line card, Shinbashi teaches re-routing an input signal so that the input signal does not pass through the line card at all - either as input to the line card or output from the line card.

Conversely, the present claims have been amended to clarify that, in the event of a failure of a line card, the I/O port of the failed line card is still routed through the line card, but to a local port of the line card rather than to the link port of the line card. The local port of the failed line card provides the I/O to a spare line card and the link port of the spare line card is used.

Claims 12-17 include independent claims 12 and 15. Both claims 12 and 15 have been amended to clarify that the I/O passes through the line card and out of the line card's local port before traveling to the spare line card. That is, the I/O port is re-routed through the line card without completely bypassing the line card. As discussed above, Shinbashi only teaches completely re-routing signals around the working unit and consequently does not teach the limitations recited in claims 12 and 15. Consequently, claims 12 and 15 are respectfully submitted to be allowable. Additionally, claims 13-14

and 16-17 depend from claims 12 and 15 are and consequently also respectfully submitted to be allowable.

New claims 18-28 have been added for the Examiner's consideration to further accentuate the differentiation from Shinbashi.

New claims 18 and 19 specifically differentiate from Shinbashi's teaching of completely bypassing the working unit. New independent claims 18 and 19 recite a method and system respectively, in which each of a group of line cards includes an I/O port and a link port and that each line card is capable of providing internal communication between its I/O port and its link port. In the event of the failure of the link port of the line card, the data received into the line card passes through the line card's I/O port, but instead of passing the data to the line card's link port, the line card passes the data to a spare line card. The data passed through the failed line card to the spare line card eventually passes through the link port on the spare line card.

New claims 20-28 have been added to highlight the difference from Shinbashi's limited switching scheme. Examiner has interpreted "local port" to be the input to the switching unit on the left side of FIG. 7 of Shinbashi. While Applicant respectfully disagrees that Shinbashi teaches or suggests a local port for a line card, the Examiner's interpretation is useful for demonstrating the differences from Shinbashi. Looking further at FIG. 7 of Shinbashi, the left side of the switching unit is hard-wired to an I/O channel(s), and connectable through a switch to then input of a common stand-by unit.

Shinbashi does not teach or suggest a local port connectable to both an I/O port and the link port. In stead, Shinbashi shows only an input to a switching unit, hard-wired to I/O channel(s), and connectable to the input of a common stand-by unit.

By contrast, new independent claims 20 and 29 recite a line card with a local port that supports the passage of both data from the I/O port and data from the link port. Consequently, independent claims 20 and 29, and accompanying dependent claims 21-28 are respectfully submitted as allowable.

CONCLUSION

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

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